

REMARKS

Claims 57, 59-73, and 75-103 are pending in the present application. Claims 57-103 were presented for examination. Claims 58 and 74 have been cancelled by amendment.

In the office action mailed September 12, 2006 (the "Office Action"), the Examiner rejected claims 57, 58, 62-67, 70-74, 79-85, 89-95, and 99-103 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,751,929 to Hayakawa et al. (the "Hayakawa patent"). The Examiner further objected to claims 59-61, 68, 69, 75-78, 86-88, and 96-98 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

Claims 57, 64, 73, 83, and 93 have been amended to overcome the Examiner's rejection of claims 57, 58, 62-67, 70-74, 79-85, 89-95, and 99-103 as being anticipated by the Hayakawa patent. As previously mentioned, claims 58 and 74 have been cancelled by amendment. The Examiner's rejection of these claims is now moot.

As discussed in the previously submitted response, the Hayakawa patent describes a Doppler ultrasound system for measuring and displaying blood flow velocity profiles and average blood flow velocity. The system includes an ultrasonic probe 1 coupled to transmit and receive circuits 3 and 5. Reflected ultrasound is detected by the probe 1, and the receive circuit 5 provides echo signals to a quadrature phase detector 6. As described in the Hayakawa patent, the phase detector 6, in conjunction with a reference signal generator 7, generates output signals Va and Vb that represent Doppler frequency shifts. The Doppler signals Va and Vb are then quantized by an ADC 8 to generate digital data representing the signals, which are interleaved to provide a multiplexed signal that is analyzed by the frequency analyzer 9.

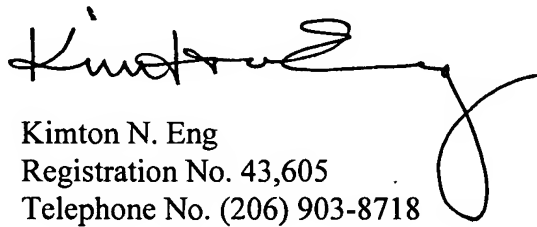
Claims 57, 64, 73, 83, and 93 have been amended to distinguish the claimed embodiments from the teachings of the Hayakawa patent. Claims 59-63, 65-72, 75-82, 84-92, and 94-103, are similarly distinguishable from the teachings of the Hayakawa reference based on their dependency from a respective base claim. Consequently, the Examiner's rejection of claims 57, 62-67, 70-73, 79-85, 89-95, and 99-103 under 35 U.S.C. 102(b) should now be withdrawn.

During a telephone conference with the Examiner on December 12, 2006, the Examiner identified three references to be added to the record as teaching various aspects of the claimed invention. The three references are U.S. Patent Nos. 5,590,658 to Chiang et al., 5,722,412 to Pflugrath et al., and 5,800,356 to Criton et al. At the request of the Examiner, a

note of these references have been made for the record in this response and the references have been identified in an information disclosure statement concurrently submitted with this response.

All of the claims pending in the present application are in condition for allowance. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
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Enclosures:

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